

Abstract of the Disclosure

An image sensor device includes an image sensor chip and an image sensor array formed on a top surface of the image sensor chip. The image sensor chip is mounted on a substrate and encapsulated by a dam wall formed on the substrate surrounding the periphery of the image sensor chip and a transparent lid member affixed to the upper edges of the dam wall. A barrier is formed on the surface of the chip extending along at least a substantial part of at least one side of the sensor array between the sensor array and the dam wall. The barrier is preferably formed with a height of at least three microns and surrounds the sensor array. The barrier may be formed during fabrication of the sensor chip. Where the sensor chip is a color image sensor including a mosaic of color filter material overlying the image sensor array, the barrier may be formed from the color filter material with the formation of the mosaic. The barrier prevents resin bleeding from the dam wall onto the surface of the sensor array.